

1. (currently amended): Use, as a catalyst for A method of catalyzing an oxidation-reactions reaction, which comprises contacting an oxidizable substrate with an oxidizing agent in the presence of a catalytically effective amount of at least one metal complex compound of formula (1)



wherein

Me is manganese, titanium, iron, cobalt, nickel or copper,

X is a coordinating or bridging radical,

n and m are each independently of the other an integer having a value of from 1 to 8,

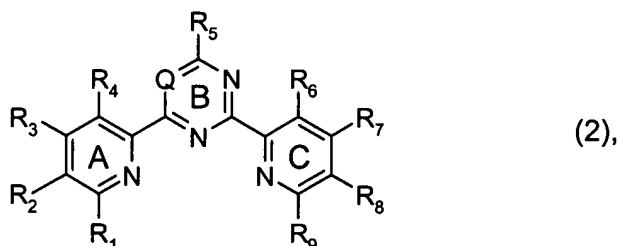
p is an integer having a value of from 0 to 32,

z is the charge of the metal complex,

Y is a counter-ion,

q = z/(charge of Y), and

L is a ligand of formula (2)



wherein

Q is N or CR₁₀,

R₁, R₂, R₃, R₄, R₅, R₆, R₇, R₈, R₉ and R₁₀ are each independently of the others hydrogen; unsubstituted or substituted C₁-C₁₈alkyl or unsubstituted or substituted aryl; cyano; halogen; nitro; -COOR₁₁ or -SO₃R₁₁ wherein

R₁₁ is in each case hydrogen, a cation or unsubstituted or substituted C₁-C₁₈alkyl or unsubstituted or substituted aryl; -SR₁₂, -SO₂R₁₂ or -OR₁₂ wherein

R₁₂ is in each case hydrogen or unsubstituted or substituted C₁-C₁₈alkyl or unsubstituted or substituted aryl; -NR₁₃R₁₄; -(C₁-C₆alkylene)-NR₁₃R₁₄; -N[⊕]R₁₃R₁₄R₁₅; -(C₁-C₆alkylene)-N[⊕]R₁₃R₁₄R₁₅; -N(R₁₂)-(C₁-C₆alkylene)-NR₁₃R₁₄; -N[(C₁-C₆alkylene)-NR₁₃R₁₄]₂; -N(R₁₂)-(C₁-C₆alkylene)-N[⊕]R₁₃R₁₄R₁₅; -N[(C₁-C₆alkylene)-N[⊕]R₁₃R₁₄R₁₅]₂; -N(R₁₂)-N-R₁₃R₁₄ or -N(R₁₂)-N[⊕]R₁₃R₁₄R₁₅, wherein

R₁₂ is as defined above and

R₁₃, R₁₄ and R₁₅ are each independently of the other(s) hydrogen or unsubstituted or substituted C₁-C₁₈alkyl or unsubstituted or substituted aryl, or

R₁₃ and R₁₄, together with the nitrogen atom linking them, form an unsubstituted or substituted 5-, 6- or 7-membered ring which may contain further hetero atoms.

2. (currently amended): ~~Use A method~~ according to claim 1, wherein Me is manganese in the oxidation state II, III, IV or V.

3. (cancelled).

4. (currently amended): ~~Use A method according to any one of claims claim 1, 2 and 3,~~ wherein X is CH₃CN, H₂O, F⁻, Cl⁻, Br⁻, HOO⁻, O₂²⁻, O²⁻, R₁₆COO⁻, R₁₆O⁻, LMeO⁻ or LMeOO⁻, wherein R₁₆ is hydrogen, -SO₃C₁-C₄alkyl or unsubstituted or substituted C₁-C₁₈alkyl or substituted or unsubstituted aryl, and L and Me are as defined in claim 1.

5. (currently amended): ~~Use A method according to any one of claims 1 to 4 claim 1,~~ wherein Y is R₁₇COO⁻, ClO₄⁻, BF₄⁻, PF₆⁻, R₁₇SO₃⁻, R₁₇SO₄⁻, SO₄²⁻, NO₃⁻, F⁻, Cl⁻, Br⁻, I⁻, citrate, tartrate or oxalate, wherein R₁₇ is hydrogen or unsubstituted or ~~substituted~~ substituted C₁-C₁₈alkyl or substituted or unsubstituted aryl.

6. (currently amended): ~~Use A method according to any one of claims 1 to 5 claim 1,~~ wherein n is an integer having a value of from 1 to 4, ~~especially 1 or 2.~~

7. (currently amended): ~~Use A method according to any one of claims 1 to 6 claim 1,~~ wherein m is an integer having a value of 1 or 2, ~~especially 1.~~

8. (currently amended): ~~Use A method according to any one of claims 1 to 7 claim 1,~~ wherein p is an integer having a value of from 0 to 4, ~~especially 2.~~

9. (currently amended): ~~Use A method according to any one of claims 1 to 8 claim 1,~~ wherein z is an integer having a value of from 8- to 8+.

10. (currently amended): ~~Use A method according to any one of claims 1 to 9~~ claim 1, wherein aryl is phenyl or naphthyl each unsubstituted or substituted by C₁-C₄alkyl, C₁-C₄alkoxy, halogen, cyano, nitro, carboxy, sulfo, hydroxy, amino, N-mono- or N,N-di-C₁-C₄alkylamino unsubstituted or substituted by hydroxy in the alkyl moiety, N-phenylamino, N-naphthylamino, phenyl, phenoxy or by naphthyloxy.

11. (currently amended): ~~Use A method according to any one of claims 1 to 10~~ claim 1, wherein the 5-, 6- or 7-membered ring formed by R₁₃ and R₁₄ together with the nitrogen atom linking them is an unsubstituted or C₁-C₄alkyl-substituted pyrrolidine, piperidine, piperazine, morpholine or azepane ring wherein the nitrogen atoms may be quaternised.

12. (currently amended): ~~Use A method according to any one of claims 1 to 11~~ claim 1, wherein R₅ is C₁-C₁₂alkyl; phenyl unsubstituted or substituted by C₁-C₄alkyl, C₁-C₄alkoxy, halogen, cyano, nitro, carboxy, sulfo, hydroxy, amino, N-mono- or N,N-di-C₁-C₄alkylamino unsubstituted or substituted by hydroxy in the alkyl moiety, N-phenylamino, N-naphthylamino, phenyl, phenoxy or by naphthyloxy; cyano; halogen; nitro; -COOR₁₁ or -SO₃R₁₁ wherein

R₁₁ is in each case hydrogen, a cation, C₁-C₁₂alkyl, unsubstituted phenyl or phenyl substituted as indicated above; -SR₁₂, -SO₂R₁₂ or -OR₁₂ wherein

R₁₂ is in each case hydrogen, C₁-C₁₂alkyl, unsubstituted phenyl or phenyl substituted as indicated above; -NR₁₃R₁₄; -(C₁-C₆alkylene)-NR₁₃R₁₄; -N[⊕]R₁₃R₁₄R₁₅; -(C₁-C₆alkylene)-N[⊕]R₁₃R₁₄R₁₅; -N(R₁₂)-(C₁-C₆alkylene)-NR₁₃R₁₄; -N(R₁₂)-(C₁-C₆alkylene)-N[⊕]R₁₃R₁₄R₁₅; -N(R₁₂)-N-R₁₃R₁₄ or -N(R₁₂)-N[⊕]R₁₃R₁₄R₁₅, wherein

R₁₂ may have one of the above meanings and

R₁₃, R₁₄ and R₁₅ are each independently of the other(s) hydrogen, unsubstituted or hydroxy-substituted C₁-C₁₂alkyl, unsubstituted phenyl or phenyl substituted as indicated above, or

R₁₃ and R₁₄, together with the nitrogen atom linking them, form a pyrrolidine, piperidine, piperazine, morpholine or azepane ring unsubstituted or substituted by at least one unsubstituted C₁-C₄alkyl and/or substituted C₁-C₄alkyl, wherein the nitrogen atom may be quaternised, and R₁, R₂, R₃, R₄, R₆, R₇, R₈, R₉ and R₁₀ may be as defined in claim 1 or are hydrogen.

13. (currently amended): ~~Use A method according to any one of claims 1 to 12~~ claim 1, wherein R₅ is phenyl unsubstituted or substituted by C₁-C₄alkyl, C₁-C₄alkoxy, halogen, phenyl or by hydroxy; cyano; nitro; -COOR₁₁ or -SO₃R₁₁ wherein

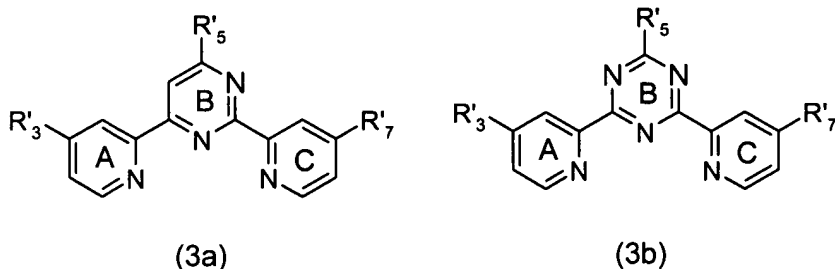
R₁₁ is in each case hydrogen, a cation, C₁-C₄alkyl or phenyl; -SR₁₂, -SO₂R₁₂ or -OR₁₂ wherein R₁₂ is in each case hydrogen, C₁-C₄alkyl or phenyl; -N(CH₃)-NH₂ or -NH-NH₂; amino; N-mono- or

N,N-di-C₁-C₄alkylamino unsubstituted or substituted by hydroxy in the alkyl moiety; or an unsubstituted or C₁-C₄alkyl-substituted pyrrolidine, piperidine, piperazine, morpholine or azepane ring.

14. (currently amended): ~~Use A method according to any one of claims 1 to 13~~ claim 1, wherein R₅ in L is C₁-C₄alkoxy; hydroxy; hydrazine; amino; N-mono- or N,N-di-C₁-C₄alkylamino unsubstituted or substituted by hydroxy in the alkyl moiety; or an unsubstituted or C₁-C₄alkyl-substituted pyrrolidine, piperidine, piperazine, morpholine or azepane ring.

15. (currently amended): ~~Use A method according to any one of claims 1 to 14~~ claim 12, wherein R₁, R₂, R₃, R₄, R₆, R₇, R₈, R₉ and R₁₀ in L have the definitions given for R₅ in ~~any one of claims 12 to 14~~ claim 12, but those radicals may additionally be hydrogen.

16. (currently amended): ~~Use A method according to any one of claims 1 to 15~~ claim 1, wherein L is a compound of formula (3a) and/or (3b)



wherein R'₃, R'₅ and R'₇ have the definitions given in ~~claims 1 to 15~~ claim 1 for R₃, R₅ and R₇.

17. (currently amended): ~~Use A method according to any one of claims 1 to 14~~ claim 1, which comprises the use, as a catalyst for oxidation reactions, of at least one metal complex compound of formula (1')



wherein

Me is manganese, titanium, iron, cobalt, nickel or copper,

X is a coordinating or bridging radical,

n and m are each independently of the other an integer having a value of from 1 to 8,

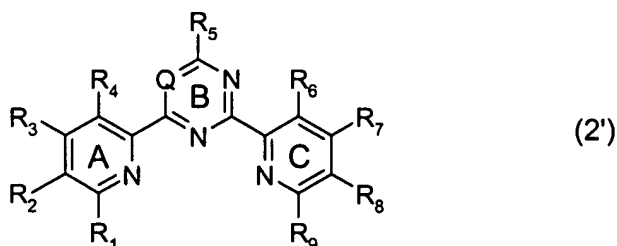
p is an integer having a value of from 0 to 32,

z is the charge of the metal complex,

Y is a counter-ion,

q = z/(charge of Y), and

L' is a ligand of formula (2')



wherein

Q is N or CR₁₀,

R₁, R₂, R₃, R₄, R₅, R₆, R₇, R₈, R₉ and R₁₀ are each independently of the others hydrogen; unsubstituted or substituted C₁-C₁₈alkyl or unsubstituted or substituted aryl; cyano; halogen; nitro; -COOR₁₁ or -SO₃R₁₁ wherein

R₁₁ is in each case hydrogen, a cation or unsubstituted or substituted C₁-C₁₈alkyl or substituted or unsubstituted aryl; -SR₁₂, -SO₂R₁₂ or -OR₁₂ wherein

R₁₂ is in each case hydrogen or unsubstituted or substituted C₁-C₁₈alkyl or unsubstituted or substituted aryl; -NR₁₃R₁₄; -(C₁-C₆alkylene)-NR₁₃R₁₄; -N[⊕]R₁₃R₁₄R₁₅;

-(C₁-C₆alkylene)-N[⊕]R₁₃R₁₄R₁₅; -N(R₁₂)-(C₁-C₆alkylene)-NR₁₃R₁₄; -N[(C₁-C₆alkylene)-NR₁₃R₁₄]₂;

-N(R₁₂)-(C₁-C₆alkylene)-N[⊕]R₁₃R₁₄R₁₅; -N[(C₁-C₆alkylene)-N[⊕]R₁₃R₁₄R₁₅]₂; -N(R₁₂)-N-R₁₃R₁₄ or

-N(R₁₂)-N[⊕]R₁₃R₁₄R₁₅, wherein

R₁₂ is as defined above and

R₁₃, R₁₄ and R₁₅ are each independently of the other(s) hydrogen or unsubstituted or substituted C₁-C₁₈alkyl or unsubstituted or substituted aryl, or

R₁₃ and R₁₄, together with the nitrogen atom linking them, form an unsubstituted or substituted 5-, 6- or 7-membered ring which may contain further hetero atoms,

with the proviso that

at least one of the substituents R₁ to R₁₀ contains a quaternised nitrogen atom that is not bonded directly to one of the three rings A, B and/or C.

18. (currently amended): ~~Use A method~~ according to claim 17, wherein R₅ is not hydrogen.

19. (currently amended): ~~Use A method~~ according to ~~either~~ claim 17 ~~or claim 18~~, wherein

R₅ in L' is phenyl unsubstituted or substituted by C₁-C₄alkyl, C₁-C₄alkoxy, halogen, phenyl or by hydroxy; cyano; nitro; -COOR₁₁ or -SO₃R₁₁ wherein

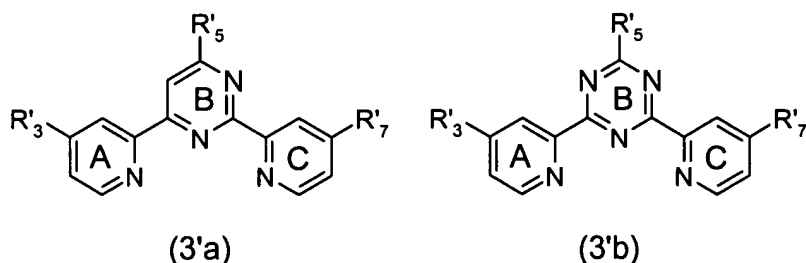
R₁₁ is in each case hydrogen, a cation, C₁-C₄alkyl or phenyl; -SR₁₂, -SO₂R₁₂ or -OR₁₂ wherein R₁₂ is in each case hydrogen, C₁-C₄alkyl or phenyl; -N(CH₃)-NH₂ or -NH-NH₂; amino; N-mono- or N,N-di-C₁-C₄alkylamino unsubstituted or substituted by hydroxy in the alkyl moiety, wherein the nitrogen atoms, ~~especially the nitrogen atoms not bonded to one of the three rings A, B or C,~~ may be quaternised; N-mono- or N,N-di-C₁-C₄alkyl-N[⊕]R₁₃R₁₄R₁₅ unsubstituted or substituted by hydroxy in the alkyl moiety, wherein

R₁₃, R₁₄ and R₁₅ are each independently of the others hydrogen or unsubstituted or hydroxy-substituted C₁-C₁₂alkyl, unsubstituted phenyl or phenyl substituted as indicated above, or

R₁₃ and R₁₄, together with the nitrogen atom linking them, form a pyrrolidine, piperidine, piperazine, morpholine or azepane ring unsubstituted or substituted by at least one C₁-C₄alkyl ~~or by at least one~~ unsubstituted C₁-C₄alkyl and/or substituted C₁-C₄alkyl, wherein the nitrogen atom may be quaternised; N-mono- or N,N-di-C₁-C₄alkyl-NR₁₃R₁₄ unsubstituted or substituted by hydroxy in the alkyl moiety, wherein

R₁₃ and R₁₄ may be as defined above.

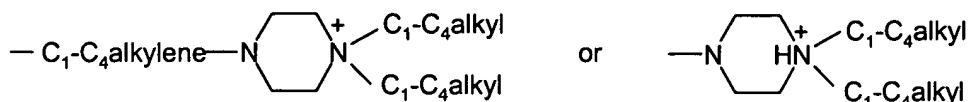
20. (currently amended): ~~Use A method according to any one of claims 17 to 19~~ claim 17, wherein L' is a compound of formula (3'a) and/or (3'b)



wherein R'₃, R'₅ and R'₇ have the definitions ~~and preferred meanings indicated above~~ in claim 17 for R₅, but R'₃ and R'₇ may additionally be hydrogen.

21. (currently amended): ~~Use A method according to any one of claims 17 to 20~~ claim 17, wherein

(i) at least one of the substituents R'₃, R'₅ and R'₇ is one of the radicals



wherein the unbranched or branched alkylene group may be unsubstituted or substituted, and wherein the alkyl groups, which are unbranched or branched independently of one another, may be unsubstituted or substituted and wherein the piperazine ring may be unsubstituted or substituted.

22. (cancelled).

23. (currently amended): ~~Use A method according to any one of claims 17 to 22~~ claim 17, wherein L' contains precisely 1, 2 or ~~precisely~~ 3 quaternised nitrogen atoms.

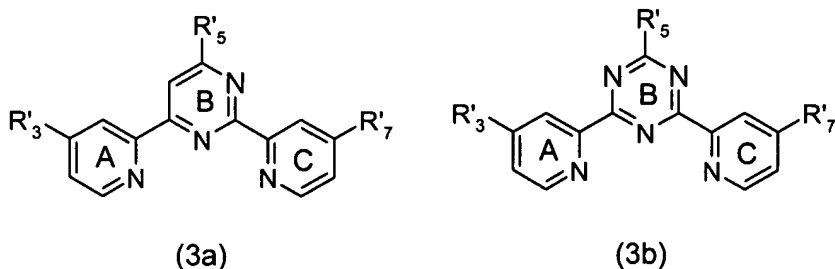
24. (currently amended): ~~Use A method~~ according to any one of claims 1 to 23, wherein the oxidation is carried out using molecular oxygen and/or air.

25. (currently amended): A metal complex compound of formula (1a)



wherein all substituents are as defined in ~~any one of claims 1 to 16~~ claim 1.

26. (currently amended): A metal complex compound of formula (1a) according to claim 25, wherein L is a compound of formula (3a) and/or (3b)



wherein

R'₅ is C₁-C₄alkoxy; hydroxy; N-mono- or N,N-di-C₁-C₄alkylamino substituted by hydroxy in the alkyl moiety; or -NR₁₃R₁₄; -(C₁-C₆alkylene)-NR₁₃R₁₄; -N(R₁₂)-(C₁-C₆alkylene)-NR₁₃R₁₄; -N[(C₁-C₆alkylene)-NR₁₃R₁₄]₂; or -N(R₁₂)-N-R₁₃R₁₄, wherein

R₁₂ is hydrogen; C₁-C₁₂alkyl or unsubstituted phenyl or phenyl substituted by (substituted in the alkyl moiety by hydroxy) N-mono- or N,N-di-C₁-C₄alkylamino-, N-phenylamino-, N-naphthylamino-, phenyl-, phenoxy- or naphthyloxy, and R₁₃ and R₁₄ are each independently of the other hydrogen, unsubstituted or hydroxy-substituted C₁-C₁₂alkyl, unsubstituted phenyl or phenyl substituted as indicated above, or

R₁₃ and R₁₄, together with the nitrogen atom linking them, form a pyrrolidine, piperidine, piperazine, morpholine or azepane ring that is unsubstituted or substituted by at least one unsubstituted C₁-C₄alkyl and/or substituted C₁-C₄alkyl, ~~especially a pyrrolidine, piperidine, piperazine, morpholine or azepane ring,~~ and

R'₃ and R'₇ are each independently of the other hydrogen; C₁-C₄alkoxy; hydroxy; N-mono- or N,N-di-C₁-C₄alkylamino substituted by hydroxy in the alkyl moiety; or -NR₁₃R₁₄; -(C₁-C₆alkylene)-NR₁₃R₁₄; -N(R₁₂)-(C₁-C₆alkylene)-NR₁₃R₁₄; -N[(C₁-C₆alkylene)-NR₁₃R₁₄]₂; or -N(R₁₂)-N-R₁₃R₁₄, wherein

R₁₂ is hydrogen; C₁-C₁₂alkyl or unsubstituted or (substituted in the alkyl moiety by hydroxy) N-mono- or N,N-di-C₁-C₄alkylamino-, N-phenylamino-, N-naphthylamino-, phenyl-, phenoxy- or naphthyloxy-substituted phenyl, and

R₁₃ and R₁₄ are each independently of the other hydrogen; unsubstituted or hydroxy-substituted C₁-C₁₂alkyl, unsubstituted phenyl or phenyl substituted as indicated above, or

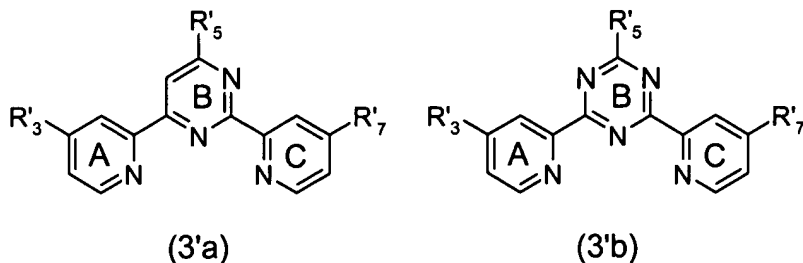
R₁₃ and R₁₄, together with the nitrogen atom linking them, form a pyrrolidine, piperidine, piperazine, morpholine or azepane ring that is unsubstituted or substituted by at least one unsubstituted C₁-C₄alkyl and/or substituted C₁-C₄alkyl, ~~especially a pyrrolidine, piperidine, piperazine, morpholine or azepane ring.~~

27. (currently amended): A metal complex compound of formula (1'a)



wherein all substituents are as defined in ~~claims~~ claim 17 to 23.

28. (currently amended): A metal complex compound of formula (1'a) according to claim 27, wherein L' is a compound of formula (3'a) and/or (3'b)



wherein R₃, R₅ and R₇ have the definitions ~~and preferred meanings given above for R₅ in claims 17 to 23~~, but R₃ and R₇ may additionally be hydrogen, with the proviso that

- (i) at least one of the substituents R₃, R₅ and R₇ is a radical -(C₁-C₆alkylene)-N[⊕]R₁₃R₁₄R₁₅; -N(R₁₂)-(C₁-C₆alkylene)-N[⊕]R₁₃R₁₄R₁₅; -N[(C₁-C₆alkylene)-N[⊕]R₁₃R₁₄R₁₅]₂; or -N(R₁₂)-N[⊕]R₁₃R₁₄R₁₅, wherein

R₁₂ is as defined above and

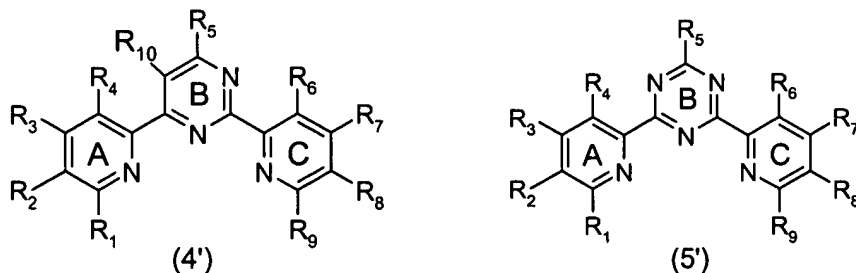
R₁₃, R₁₄ and R₁₅ are each independently of the others hydrogen or unsubstituted or substituted C₁-C₁₈alkyl or substituted or unsubstituted aryl, or

R₁₃ and R₁₄, together with the nitrogen atom linking them, form an unsubstituted or substituted 5-, 6- or 7-membered ring which may contain further hetero atoms; or

-NR₁₃R₁₄; -(C₁-C₆alkylene)-NR₁₃R₁₄; -N(R₁₂)-(C₁-C₆alkylene)-NR₁₃R₁₄; -N[(C₁-C₆alkylene)-NR₁₃R₁₄]₂; or -N(R₁₂)-N-R₁₃R₁₄, wherein

R₁₂ and R₁₅ are as defined above and R₁₃ and R₁₄, together with the nitrogen atom linking them, form a 5-, 6- or 7-membered ring which may be unsubstituted or substituted by at least one unsubstituted C₁-C₄alkyl and/or substituted C₁-C₄alkyl and may contain further hetero atoms, wherein at least one nitrogen atom not bonded to one of the rings A, B and/or C is quaternised.

29. (currently amended): A ligand L' according to ~~any one of claims 17 to 23, claim 27 and 28 of~~ formula (4') or (5')



wherein

R₁, R₂, R₃, R₄, R₅, R₆, R₇, R₈, R₉ and R₁₀ are each independently of the others hydrogen; unsubstituted or substituted C₁-C₁₈alkyl or substituted or unsubstituted aryl; cyano; halogen; nitro; -COOR₁₁ or -SO₃R₁₁ wherein

R₁₁ is in each case hydrogen, a cation or unsubstituted or substituted C₁-C₁₈alkyl or substituted or unsubstituted aryl; -SR₁₂, -SO₂R₁₂ or -OR₁₂ wherein

R₁₂ is in each case hydrogen or unsubstituted or substituted C₁-C₁₈alkyl or substituted or unsubstituted aryl; -NR₁₃R₁₄; -(C₁-C₆alkylene)-NR₁₃R₁₄;

-N[⊕]R₁₃R₁₄R₁₅; -(C₁-C₆alkylene)-N[⊕]R₁₃R₁₄R₁₅; -N(R₁₂)-(C₁-C₆alkylene)-NR₁₃R₁₄;

-N[(C₁-C₆alkylene)-NR₁₃R₁₄]₂; -N(R₁₂)-(C₁-C₆alkylene)-N[⊕]R₁₃R₁₄R₁₅;

-N[(C₁-C₆alkylene)-N[⊕]R₁₃R₁₄R₁₅]₂; -N(R₁₂)-N-R₁₃R₁₄ or -N(R₁₂)-N[⊕]R₁₃R₁₄R₁₅, wherein

R₁₂ is as defined above and

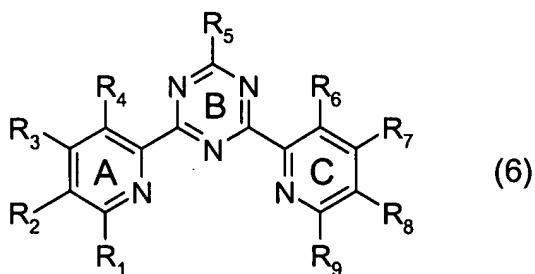
R₁₃, R₁₄ and R₁₅ are each independently of the other(s) hydrogen or unsubstituted or substituted C₁-C₁₈alkyl or substituted or unsubstituted aryl, or

R₁₃ and R₁₄, together with the nitrogen atom linking them, form an unsubstituted or substituted 5-, 6- or 7-membered ring which may contain further hetero atoms,

with the proviso that

at least one of the substituents R₁ to R₁₀ contains a quaternised nitrogen atom that is not bonded directly to one of the three rings A, B and/or C.

30. (currently amended): A ligand L according to ~~any one of claims 1 to 16, 25 and 26~~ claim 1 of formula (6)



wherein

R₁, R₂, R₄, R₅, R₆, R₇, R₈ and R₉ are each independently of the others hydrogen; unsubstituted or substituted C₁-C₁₈alkyl or substituted or unsubstituted aryl; cyano; halogen; nitro; -COOR₁₁ or -SO₃R₁₁ wherein

R₁₁ is in each case hydrogen, a cation or unsubstituted or substituted C₁-C₁₈alkyl or substituted or unsubstituted aryl; -SR₁₂, -SO₂R₁₂ or -OR₁₂ wherein

R₁₂ is in each case hydrogen or unsubstituted or substituted C₁-C₁₈alkyl or substituted or unsubstituted aryl; -NR₁₃R₁₄; -(C₁-C₆alkylene)-NR₁₃R₁₄; -N[⊕]R₁₃R₁₄R₁₅; -(C₁-C₆alkylene)-N[⊕]R₁₃R₁₄R₁₅; -N(R₁₂)-(C₁-C₆alkylene)-NR₁₃R₁₄; -N[(C₁-C₆alkylene)-NR₁₃R₁₄]₂; -N(R₁₂)-(C₁-C₆alkylene)-N[⊕]R₁₃R₁₄R₁₅; -N[(C₁-C₆alkylene)-N[⊕]R₁₃R₁₄R₁₅]₂; -N(R₁₂)-N-R₁₃R₁₄; or -N(R₁₂)-N[⊕]R₁₃R₁₄R₁₅, wherein

R₁₂ is as defined above and

R₁₃, R₁₄ and R₁₅ are each independently of the other(s) hydrogen or unsubstituted or substituted C₁-C₁₈alkyl or substituted or unsubstituted aryl, or

R₁₃ and R₁₄, together with the nitrogen atom linking them, form an unsubstituted or substituted 5-, 6- or 7-membered ring which may contain further hetero atoms,

and

R₃ is phenyl substituted by C₁-C₄alkyl, C₁-C₄alkoxy, hydroxy, sulfo, sulfato, halogen, cyano, nitro, carboxy, amino, N-mono- or N,N-di-C₁-C₄alkylamino unsubstituted or substituted by hydroxy in the alkyl moiety, N-phenylamino, N-naphthylamino, phenyl, phenoxy or by naphthyloxy, substituted C₁-C₁₈alkyl or substituted or unsubstituted aryl; -CH₃; C₃-C₁₈alkyl; cyano; halogen; nitro; -COOR₁₁ or -SO₃R₁₁ wherein

R₁₁ is in each case hydrogen, a cation or unsubstituted or substituted C₁-C₁₈alkyl or substituted or unsubstituted aryl; -SR₁₂, -SO₂R₁₂ or -OR₁₂ wherein

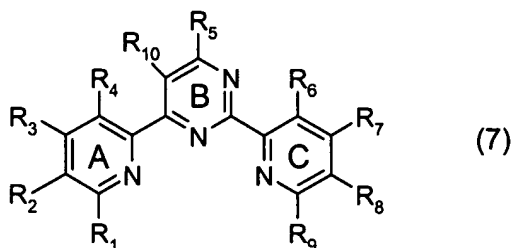
R₁₂ is in each case hydrogen or unsubstituted or substituted C₁-C₁₈alkyl or substituted or unsubstituted aryl; -NR₁₃R₁₄; -(C₁-C₆alkylene)-NR₁₃R₁₄; -N[⊕]R₁₃R₁₄R₁₅; -(C₁-C₆alkylene)-N[⊕]R₁₃R₁₄R₁₅; -N(R₁₂)-(C₁-C₆alkylene)-NR₁₃R₁₄; -N[(C₁-C₆alkylene)-NR₁₃R₁₄]₂; -N(R₁₂)-(C₁-C₆alkylene)-N[⊕]R₁₃R₁₄R₁₅; -N[(C₁-C₆alkylene)-N[⊕]R₁₃R₁₄R₁₅]₂; -N(R₁₂)-N-R₁₃R₁₄; or -N(R₁₂)-N[⊕]R₁₃R₁₄R₁₅, wherein

R₁₂ is as defined above and

R₁₃, R₁₄ and R₁₅ are each independently of the other(s) hydrogen or unsubstituted or substituted C₁-C₁₈alkyl or substituted or unsubstituted aryl, or

R₁₃ and R₁₄, together with the nitrogen atom linking them, form an unsubstituted or substituted 5-, 6- or 7-membered ring which may contain further hetero atoms.

31. (currently amended): A ligand L according to ~~any one of claims 1 to 16, 25 and 26~~ claim 1 of formula (7)



wherein

R_1 , R_2 , R_3 , R_4 , R_5 , R_6 , R_8 , R_9 and R_{10} are each independently of the others hydrogen; unsubstituted or substituted C_1 - C_{18} alkyl or substituted or unsubstituted aryl; cyano; halogen; nitro; $-COOR_{11}$ or $-SO_3R_{11}$ wherein

R_{11} is in each case hydrogen, a cation or unsubstituted or substituted C_1 - C_{18} alkyl or substituted or unsubstituted aryl; $-SR_{12}$, $-SO_2R_{12}$ or $-OR_{12}$ wherein

R_{12} is in each case hydrogen or unsubstituted or substituted C_1 - C_{18} alkyl or unsubstituted or substituted ~~substituted or unsubstituted~~ aryl; $-NR_{13}R_{14}$; $-(C_1-C_6\text{alkylene})-NR_{13}R_{14}$;

$-N^{\oplus}R_{13}R_{14}R_{15}$; $-(C_1-C_6\text{alkylene})-N^{\oplus}R_{13}R_{14}R_{15}$; $-N(R_{12})-(C_1-C_6\text{alkylene})-NR_{13}R_{14}$;

$-N[(C_1-C_6\text{alkylene})-NR_{13}R_{14}]_2$; $-N(R_{12})-(C_1-C_6\text{alkylene})-N^{\oplus}R_{13}R_{14}R_{15}$;

$-N[(C_1-C_6\text{alkylene})-N^{\oplus}R_{13}R_{14}R_{15}]_2$; $-N(R_{12})-N-R_{13}R_{14}$ or $-N(R_{12})-N^{\oplus}R_{13}R_{14}R_{15}$, wherein

R_{12} is as defined above and

R_{13} , R_{14} and R_{15} are each independently of the other(s) hydrogen or unsubstituted or substituted C_1 - C_{18} alkyl or substituted or unsubstituted aryl, or

R_{13} and R_{14} , together with the nitrogen atom linking them, form an unsubstituted or substituted 5-, 6- or 7-membered ring which may contain further hetero atoms,

and

R_7 is phenyl substituted by C_1 - C_4 alkyl, C_1 - C_4 alkoxy, hydroxy, sulfo, sulfato, halogen, cyano, nitro, carboxy, amino, N-mono- or N,N-di- C_1 - C_4 alkylamino unsubstituted or substituted by hydroxy in the alkyl moiety, N-phenylamino, N-naphthylamino, phenyl, phenoxy or by naphthyloxy, substituted C_1 - C_{18} alkyl or substituted or unsubstituted aryl; $-CH_3$; C_3 - C_{18} alkyl; cyano; F; Br; I; nitro; $-COOR_{11}$ or $-SO_3R_{11}$ wherein

R_{11} is in each case hydrogen, a cation or unsubstituted or substituted C_1 - C_{18} alkyl or substituted or unsubstituted aryl; $-SR_{12}$, $-SO_2R_{12}$ or $-OR_{12}$ wherein

R_{12} is in each case hydrogen or unsubstituted or substituted C_1 - C_{18} alkyl or unsubstituted or substituted aryl; $-NR_{13}R_{14}$; $-(C_1-C_6\text{alkylene})-NR_{13}R_{14}$; $-N^{\oplus}R_{13}R_{14}R_{15}$;

$-(C_1-C_6\text{alkylene})-N^{\oplus}R_{13}R_{14}R_{15}$; $-N(R_{12})-(C_1-C_6\text{alkylene})-NR_{13}R_{14}$;

$-N[(C_1-C_6\text{alkylene})-NR_{13}R_{14}]_2$; $-N(R_{12})-(C_1-C_6\text{alkylene})-N^{\oplus}R_{13}R_{14}R_{15}$;

$-N[(C_1-C_6\text{alkylene})-N^{\oplus}R_{13}R_{14}R_{15}]_2$; $-N(R_{12})-N-R_{13}R_{14}$; or $-N(R_{12})-N^{\oplus}R_{13}R_{14}R_{15}$, wherein

R_{12} is as defined above and

R_{13} , R_{14} and R_{15} are each independently of the other(s) hydrogen or unsubstituted or substituted C_1-C_{18} alkyl or substituted or unsubstituted aryl, or

R_{13} and R_{14} , together with the nitrogen atom linking them, form an unsubstituted or substituted 5-, 6- or 7-membered ring which may contain further hetero atoms.

32. (currently amended): A detergent, cleaning, disinfecting or bleaching composition containing

- I) from 0 to 50% A) of an anionic surfactant and/or B) of a non-ionic surfactant,
- II) from 0 to 70% C) of a builder substance,
- III) from 1 to 99% D) of a peroxide,
- IV) E) at least one metal complex compound of formula (1) ~~and/or (1')~~ of any one of claims of claim 25 to 28 in an amount that, in the liquor, gives a concentration of from 0.5 to 50 mg/litre of liquor, ~~preferably from 1 to 30 mg/litre of liquor~~, when from 0.5 to 20 g/litre of the detergent, cleaning, disinfecting or bleaching agent are added to the liquor, the percentages in each case being percentages by weight, based on the total weight of the composition, and
- V) water ad 100%.

33. (currently amended): A solid formulation containing

- a) from 1 to 99% by weight of a metal complex compound of formula (1) ~~and/or (1')~~ of any one of claims of claim 25 to 28,
- b) from 1 to 99% by weight of a binder,
- c) from 0 to 20% by weight of an encapsulating material,
- d) from 0 to 20% by weight of a further additive and
- e) from 0 to 20% by weight of water.

34. (original): A solid formulation according to claim 33, which is in the form of tablets or granules.